PALM Intranet

Application Number [＿＿＿＿＿＿＿] [SEARCH]

IDS Flag Clearance for Application [10695529＿＿]

[IDS Information]

	Content	Mailroom Date	Entry Number	IDS Review	Reviewer

[UPDATE]

USPTO PATENT FULL-TEXT AND IMAGE DATABASE

Help	Home	Quick	Advanced	Pat Num	Order Copy	PTDLs

Searching 1976-present...

Results of Search in 1976-present db for:
"flowchart markup language": 0 patents.

No patents have matched your query

Refine Search	"flowchart markup language"

IEEE Xplore
RELEASE 2.1

Welcome United States Patent and Trademark Office

■回■Search Results   BROWSE   SEARCH   IEEE XPLORE GUIDE

Results for "(('flowchart markup language')<in>metadata)"   ☑ e-mail

Your search matched 0 documents.

A maximum of 100 results are displayed, 25 to a page, sorted by **Relevance** in **Descending** order.

» Search Options

View Session History

New Search

» Key

IEEE JNL	IEEE Journal or Magazine
IEE JNL	IEE Journal or Magazine
IEEE CNF	IEEE Conference Proceeding
IEE CNF	IEE Conference Proceeding
IEEE STD	IEEE Standard

Modify Search

(('flowchart markup language')<in>metadata)   [Search ▶]

☐ Check to search only within this results set

Display Format: ◉ Citation   ○ Citation & Abstract

No results were found.

Please edit your search criteria and try again. Refer to the Help pages if you need assistance revising your search

Indexed by
Ⅲ Inspec*

Nothing Found

Your search for **"flowchart markup language"** did not return any results.

You may want to try an Advanced Search for additional options.

Please review the Quick Tips below or for more information see the Search Tips.

Quick Tips

- Enter your search terms in lower case with a space between the terms.

      sales offices

  You can also enter a full question or concept in plain language.

      Where are the sales offices?

- Capitalize proper nouns to search for specific people, places, or products.

      John Colter, Netscape Navigator

- Enclose a phrase in double quotes to search for that exact phrase.

      "museum of natural history" "museum of modern art"

- Narrow your searches by using a **+** if a search term must appear on a page.

      museum +art

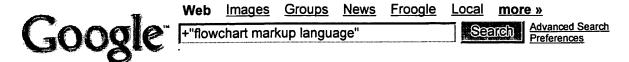- Exclude pages by using a **-** if a search term must not appear on a page.

      museum -Paris

Combine these techniques to create a specific search query. The better your description of the information you want, the more relevant your results will be.

      museum +"natural history" dinosaur -Chicago

Web   Images   Groups   News   Froogle   Local   **more »**

Google™

+"flowchart markup language"   **Search**   Advanced Search
Preferences

Web   Results **1 - 3** of about **4** for +"**flowchart markup language**". (**0.42** seconds)

Tip: Try removing quotes from your search to get more results.

United States Patent Application: 0050091177
[0012] in a further aspect of The invention, a representation of The decision flowchart is
obtained as a **flowchart Markup Language** (FCML) document ...
appft1.uspto.gov/.../ 20050091177&RS=DN/20050091177 - Supplemental Result -
Similar pages

Apparatus, method, and computer program product for converting ...
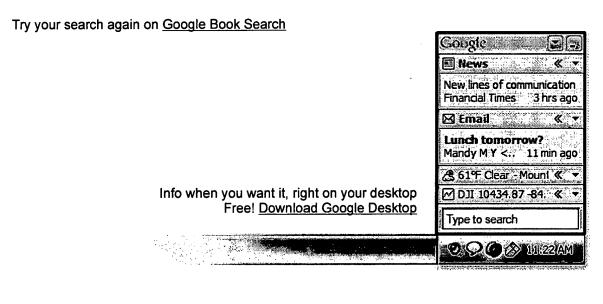[0012] In a further aspect of the invention, a representation of the decision flowchart is
obtained as a **Flowchart Markup Language** (FCML) document ...
www.freshpatents.com/ Apparatus-method-and-computer-program-product-for-converting-
decision-flowcharts-int... - 21k - Cached - Similar pages

Apparatus, method, and computer program product for converting ...
... representation of the decision flowchart is obtained as a **Flowchart Markup Language**
(FCML) document containing the essence of the decision flowchart. ...
www.freshpatents.com/ Apparatus-method-and-computer-program-product-for-converting-
decision-flowcharts-int... - 35k - Cached - Similar pages

*In order to show you the most relevant results, we have omitted some entries very similar to
the 3 already displayed.
If you like, you can repeat the search with the omitted results included.*

Try your search again on Google Book Search

Info when you want it, right on your desktop
Free! Download Google Desktop

+"flowchart markup language"   **Search**

Search within results | Language Tools | Search Tips | Dissatisfied? Help us improve

Google Home - Advertising Programs - Business Solutions - About Google

USPTO Patent Full-Text and Image Database

Home	Quick	Advanced	Pat Num	Help

Next List	Bottom	View Cart

Searching 1976 to present...

Results of Search in 1976 to present db for:
(((Bayesian AND (graphical OR GUI)) AND table) AND ("conditional probabilities" OR "conditional probability")): 106 patents.
Hits 1 through 50 out of 106

[Next 50 Hits]

[Jump To] [   ]

[Refine Search] | Bayesian and (graphical or GUI) and table and ("cond

PAT. NO.	Title
1	7,003,158 Handwriting recognition with mixtures of Bayesian networks
2	6,999,601 Method for visual tracking using switching linear dynamic systems models
3	6,993,462 Method for motion synthesis and interpolation using switching linear dynamic system models
4	6,981,040 Automatic, personalized online information and product services
5	6,973,459 Adaptive Bayes Network data mining modeling
6	6,957,202 Model selection for decision support systems
7	6,952,499 Aspire (autonomous spatial pattern identification and recognition algorithm)
8	6,944,317 Method for motion classification using switching linear dynamic systems models
9	6,940,540 Speaker detection and tracking using audiovisual data
10	6,937,746 System and method for automatic recognition of formations in moving target indication data
11	6,931,384 System and method providing utility-based decision making about clarification dialog given communicative uncertainty
12	6,931,326 Methods for obtaining and using haplotype data
13	6,928,425 System for propagating enrichment between documents
14	6,917,839 Surveillance system and method having an operating mode partitioned fault classification model
15	6,901,308 System level analysis and control of manufacturing process variation
16	6,879,973 Automated diagnosis of printer systems using bayesian networks
17	6,868,319 Diagnostic system and method
18	6,850,252 Intelligent electronic appliance system and method
19	6,847,733 Retrieval and browsing of database images based on image emphasis and appeal

20 6,839,754 IT Network tomography using closely-spaced unicast packets

21 6,836,777 IT System and method for constructing generic analytical database applications

22 6,836,773 IT Enterprise web mining system and method

23 6,832,069 IT Latent property diagnosing procedure

24 6,832,006 IT System and method for controlling image compression based on image emphasis

25 6,820,075 IT Document-centric system with auto-completion

26 6,820,072 IT Validation of probabilistic troubleshooters and diagnostic system

27 6,811,310 IT Methods and devices for analysis of X-ray images

28 6,807,537 IT Mixtures of Bayesian networks

29 6,807,491 IT Method and apparatus for combining gene predictions using bayesian networks

30 6,801,909 IT System and method for obtaining user preferences and providing user recommendations for unseen physical and information goods and services

31 6,785,636 IT Fault diagnosis in a complex system, such as a nuclear plant, using probabilistic reasoning

32 6,778,979 IT System for automatically generating queries

33 6,751,536 IT Diagnostic system and method for enabling multistage decision optimization for aircraft preflight dispatch

34 6,748,097 IT Method for varying the number, size, and magnification of photographic prints based on image emphasis and appeal

35 6,742,003 IT Apparatus and accompanying methods for visualizing clusters of data and hierarchical cluster classifications

36 6,738,494 IT Method for varying an image processing path based on image emphasis and appeal

37 6,732,090 IT Meta-document management system with user definable personalities

38 6,708,146 IT Voiceband signal classifier

39 6,691,249 IT Probabilistic diagnosis, in particular for embedded and remote applications

40 6,690,761 IT Methods and devices for analysis of X-ray images

41 6,687,696 IT System and method for personalized search, information filtering, and for generating recommendations utilizing statistical latent class models

42 6,687,685 IT Automated medical decision making utilizing bayesian network knowledge domain modeling

43 6,675,159 IT Concept-based search and retrieval system

44 6,671,405 IT Method for automatic assessment of emphasis and appeal in consumer images

45 6,641,532 IT Computerized medical diagnostic system utilizing list-based processing

46 6,633,861 IT Automatic invocation of computational resources without user intervention across a network

47 6,601,055 IT Explanation generation system for a diagnosis support tool employing an inference system

48 6,584,455 IT System and method for predicting design errors in integrated circuits

49 6,574,537 IT Diagnostic system and method

50 6,567,814 IT Method and apparatus for knowledge discovery in databases

---

Next List	Top	View Cart

Home	Quick	Advanced	Pat Num	Help

USPTO PATENT FULL-TEXT AND IMAGE DATABASE

| Home | Quick | Advanced | Pat Num | Help |

| Prev. List | Next List | Bottom | View Cart |

Searching 1976 to present...

Results of Search in 1976 to present db for:
(((Bayesian AND (graphical OR GUI)) AND table) AND ("conditional probabilities" OR "conditional probability")): 106 patents.
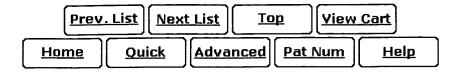*Hits 51 through 100 out of 106*

| Prev. 50 Hits |

| Final 6 Hits |

| Jump To | [   ] |

| Refine Search | Bayesian and (graphical or GUI) and table and ("cond |

	PAT. NO.	Title
51	6,564,197	Method and apparatus for scalable probabilistic clustering using decision trees
52	6,556,960	Variational inference engine for probabilistic graphical models
53	6,553,548	System and method for recovering from design errors in integrated circuits
54	6,539,395	Method for creating a database for comparing music
55	6,535,865	Automated diagnosis of printer systems using Bayesian networks
56	6,529,891	Automatic determination of the number of clusters by mixtures of bayesian networks
57	6,529,888	Generating improved belief networks
58	6,496,816	Collaborative filtering with mixtures of bayesian networks
59	6,493,637	Coincidence detection method, products and apparatus
60	6,484,010	Tree-based approach to proficiency scaling and diagnostic assessment
61	6,460,049	Method system and computer program product for visualizing an evidence classifier
62	6,456,622	Method for knowledge acquisition for diagnostic bayesian networks
63	6,415,276	Bayesian belief networks for industrial processes
64	6,408,290	Mixtures of bayesian networks with decision graphs
65	6,345,265	Clustering with mixtures of bayesian networks
66	6,340,567	Genomics via optical mapping with ordered restriction maps
67	6,336,108	Speech recognition with mixtures of bayesian networks
68	6,327,574	Hierarchical models of consumer attributes for targeting content in a privacy-preserving manner
69	6,301,579	Method, system, and computer program product for visualizing a data structure
70	6,295,525	Automatic invocation of computational resources without user intervention across a

network

71 6,270,456 📠 Computerized medical diagnostic system utilizing list-based processing

72 6,249,594 📠 Autosegmentation/autocontouring system and method

73 6,233,575 📠 Multilevel taxonomy based on features derived from training documents classification using fisher values as discrimination values

74 6,232,974 📠 Decision-theoretic regulation for allocating computational resources among components of multimedia content to improve fidelity

75 6,223,143 📠 Quantitative risk assessment system (QRAS)

76 6,216,134 📠 Method and system for visualization of clusters and classifications

77 6,212,502 📠 Modeling and projecting emotion and personality from a computer user interface

78 6,185,534 📠 Modeling emotion and personality in a computer user interface

79 6,182,133 📠 Method and apparatus for display of information prefetching and cache status having variable visual indication based on a period of time since prefetching

80 6,174,671 📠 Genomics via optical mapping ordered restriction maps

81 6,154,736 📠 Belief networks with decision graphs

82 6,144,838 📠 Tree-based approach to proficiency scaling and diagnostic assessment

83 6,095,982 📠 Spectroscopic method and apparatus for optically detecting abnormal mammalian epithelial tissue

84 6,085,226 📠 Method and apparatus for utility-directed prefetching of web pages into local cache using continual computation and user models

85 6,076,083 📠 Diagnostic system utilizing a Bayesian network model having link weights updated experimentally

86 6,067,565 📠 Technique for prefetching a web page of potential future interest in lieu of continuing a current information download

87 6,056,690 📠 Method of diagnosing breast cancer

88 6,049,792 📠 Automatic invocation of computational resources without user intervention across a network

89 6,041,182 📠 Automatic invocation of computational resources without user intervention

90 6,024,705 📠 Automated seismic detection of myocardial ischemia and related measurement of cardiac output parameters

91 6,009,452 📠 Apparatus and methods for optimally using available computer resources for task execution during idle-time based on probabilistic assessment of future task instances

92 5,995,997 📠 Apparatus and methods for optimally allocating currently available computer resources to future task instances versus continued execution of current task instances

93 5,987,415 📠 Modeling a user's emotion and personality in a computer user interface

94 5,935,060 📠 Computerized medical diagnostic and treatment advice system including list based processing

95 5,930,803 📠 Method, system, and computer program product for visualizing an evidence classifier

96 5,802,256 📠 Generating improved belief networks

97 5,787,236 📠 Graphical computer method for analyzing quantum systems

98 5,784,616 📠 Apparatus and methods for optimally using available computer resources for task execution during idle-time for future task instances exhibiting incremental value with computation

99 5,704,018 📠 Generating improved belief networks

100 5,697,373 📠 Optical method and apparatus for the diagnosis of cervical precancers using raman and fluorescence spectroscopies

Prev. List	Next List	Top	View Cart

Home	Quick	Advanced	Pat Num	Help

USPTO Patent Full-Text and Image Database

Home	Quick	Advanced	Pat Num	Help

Prev. List	Bottom	View Cart

Searching 1976 to present...

Results of Search in 1976 to present db for:
(((Bayesian AND (graphical OR GUI)) AND table) AND ("conditional probabilities" OR "conditional probability")): 106 patents.
Hits 101 through 106 out of 106

Prev. 50 Hits

Jump To [   ]

Refine Search | Bayesian and (graphical or GUI) and table and ("cond

PAT. NO.	Title
101 5,696,884	Method for assisting in rendering a decision using improved belief networks
102 5,546,502	Automatic invocation of computational resources without user intervention
103 5,368,471	Method and apparatus for use in monitoring and controlling a black liquor recovery furnace
104 5,347,460	Method and system employing optical emission spectroscopy for monitoring and controlling semiconductor fabrication
105 5,343,388	Method and apparatus for optimally allocating resources
106 5,020,411	Mobile assault logistic kinetmatic engagement device

Prev. List	Top	View Cart

Home	Quick	Advanced	Pat Num	Help

IEEE *Xplore*
RELEASE 2.1

Welcome United States Patent and Trademark Office

Search Results

BROWSE   SEARCH   IEEE XPLORE GUIDE

Results for "((bayesian and (graphical or gui) and table and ('conditional probabilities' or 'conditional prob..."
Your search matched 1 of 1322957 documents.
A maximum of 100 results are displayed, 25 to a page, sorted by Relevance in Descending order.

✉ e-mail

» **Search Options**

View Session History

New Search

» **Key**

IEEE JNL	IEEE Journal or Magazine
IEE JNL	IEE Journal or Magazine
IEEE CNF	IEEE Conference Proceeding
IEE CNF	IEE Conference Proceeding
IEEE STD	IEEE Standard

Modify Search

| ((bayesian and (graphical or gui) and table and ('conditional probabilities' or 'condition | **Search** » |

☐ Check to search only within this results set

Display Format: ⦿ Citation   ○ Citation & Abstract

view selected items   Select All   Deselect All

☐   1. **Using Bayesian networks as an inference engine in KAMET**
Cairo, O.; Penaloza, R.;
Chilean Computer Science Society, 2003. SCCC 2003. Proceedings. 23rd International Conferenc
6-7 Nov. 2003 Page(s):79 - 85
Digital Object Identifier 10.1109/SCCC.2003.1245448

AbstractPlus | Full Text: PDF(298 KB)   IEEE CNF
Rights and Permissions

Help   Contact Us   Privac

Indexed by
Inspec

P@RTAL

USPTO

Search: ● The ACM Digital Library   ○ The Guide

Bayesian and (graphical or GUI) and table and ("conditional pr   **SEARCH**

i Feedback Report a problem Satisfaction survey

Terms used
Bayesian and **graphical** or **GUI** and **table** and **conditional probabilities** or **conditional probability**

Found **31,329** of **171,143**

Sort results by   [relevance ▽]
Display results   [expanded form ▽]

🔖 Save results to a Binder
⬚ Search Tips
☐ Open results in a new window

Try an Advanced Search
Try this search in The ACM Guide

Results 1 - 20 of 200   Result page: **1** 2 3 4 5 6 7 8 9 10   next
Best 200 shown   Relevance scale ☐◱◰◼◼

1 Computing curricula 2001   ◼
September 2001 **Journal on Educational Resources in Computing (JERIC)**
Publisher: ACM Press
Full text available: 📄 pdf(613.63 KB)   Additional Information: full citation, references, citings, index terms
                     📄 html(2.78 KB)

2 Mini-buckets: A general scheme for bounded inference   ◼
Rina Dechter, Irina Rish
March 2003 **Journal of the ACM (JACM)**, Volume 50 Issue 2
Publisher: ACM Press
Full text available: 📄 pdf(902.27 KB)   Additional Information: full citation, abstract, references, citings, index terms

This article presents a class of approximation algorithms that extend the idea of bounded-complexity inference, inspired by successful constraint propagation algorithms, to probabilistic inference and combinatorial optimization. The idea is to bound the dimensionality of dependencies created by inference algorithms. This yields a parameterized scheme, called *mini-buckets*, that offers adjustable trade-off between accuracy and efficiency. The mini-bucket approach to optimization problems, s ...

Keywords: Accuracy/complexity trade-off, Bayesian networks, approximation algorithms, combinatorial optimization, probabilistic inference.

3 Special issue on the fusion of domain knowledge with data for decision support: ◼
Combining knowledge from different sources in causal probabilistic models
Marek J. Druzdzel, Francisco J. Díez
December 2003 **The Journal of Machine Learning Research**, Volume 4
Publisher: MIT Press
Full text available: 📄 pdf(140.32 KB)   Additional Information: full citation, abstract, references, index terms

Building probabilistic and decision-theoretic models requires a considerable knowledge engineering effort in which the most daunting task is obtaining the numerical parameters. Authors of Bayesian networks usually combine various sources of information, such as textbooks, statistical reports, databases, and expert judgement. In this paper, we demonstrate the risks of such a combination, even when this knowledge encompasses such seemingly population-independent characteristics as sensitivity and ...

4 Dependency networks for inference, collaborative filtering, and data visualization ▬

David Heckerman, David Maxwell Chickering, Christopher Meek, Robert Rounthwaite, Carl Kadie

September 2001 **The Journal of Machine Learning Research**, Volume 1

Publisher: MIT Press

Full text available: 📄 pdf(337.07 KB)   Additional Information: full citation, abstract, citings

> We describe a graphical model for probabilistic relationships--an alternative to the Bayesian network--called a dependency network. The graph of a dependency network, unlike a Bayesian network, is potentially cyclic. The probability component of a dependency network, like a Bayesian network, is a set of conditional distributions, one for each node given its parents. We identify several basic properties of this representation and describe a computationally efficient procedure for learning the gra ...

5 Posters: Combining speech and haptics for intuitive and efficient navigation through ▬
◆ image databases

Thomas Käster, Michael Pfeiffer, Christian Bauckhage

November 2003 **Proceedings of the 5th international conference on Multimodal interfaces**

Publisher: ACM Press

Full text available: 📄 pdf(239.65 KB)   Additional Information: full citation, abstract, references, index terms

> Given the size of todays professional image databases, the stan-dard approach to object- or theme-related image retrieval is to in-teractively navigate through the content. But as most users of such databases are designers or artists who do not have a technical back-ground, navigation interfaces must be intuitive to use and easy to learn. This paper reports on efforts towards this goal. We present a system for intuitive image retrieval that features different moda-lities for interaction. Apart f ...

> **Keywords:** content-based image retrieval, fusion of haptics, multimodal interface evaluation, speech, vision processing

6 On inclusion-driven learning of bayesian networks ▬

Robert Castelo, Tomáas Kocka

December 2003 **The Journal of Machine Learning Research**, Volume 4

Publisher: MIT Press

Full text available: 📄 pdf(980.59 KB)   Additional Information: full citation, abstract, references, index terms

> Two or more Bayesian network structures are Markov equivalent when the corresponding acyclic digraphs encode the same set of conditional independencies. Therefore, the search space of Bayesian network structures may be organized in equivalence classes, where each of them represents a different set of conditional independencies. The collection of sets of conditional independencies obeys a partial order, the so-called "inclusion order." This paper discusses in depth the role that the inclusion ord ...

7 A differential approach to inference in Bayesian networks ▬
◆ Adnan Darwiche

May 2003 **Journal of the ACM (JACM)**, Volume 50 Issue 3
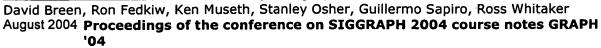
Publisher: ACM Press

Full text available: 📄 pdf(237.97 KB)   Additional Information: full citation, abstract, references, citings, index terms

> We present a new approach to inference in Bayesian networks, which is based on representing the network using a polynomial and then retrieving answers to probabilistic queries by evaluating and differentiating the polynomial. The network polynomial itself is exponential in size, but we show how it can be computed efficiently using an arithmetic circuit that can be evaluated and differentiated in time and space linear in the circuit size. The proposed framework for inference subsumes one of the m ...

> **Keywords:** Bayesian networks, Probabilistic reasoning, circuit complexity, compiling

probabilistic models

8 Level set and PDE methods for computer graphics

David Breen, Ron Fedkiw, Ken Museth, Stanley Osher, Guillermo Sapiro, Ross Whitaker
August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press

Full text available: pdf(17.07 MB)   Additional Information: full citation, abstract

Level set methods, an important class of partial differential equation (PDE) methods, define dynamic surfaces implicitly as the level set (iso-surface) of a sampled, evolving nD function. The course begins with preparatory material that introduces the concept of using partial differential equations to solve problems in computer graphics, geometric modeling and computer vision. This will include the structure and behavior of several different types of differential equations, e.g. the level set eq ...

9 Web: Implicit link analysis for small web search

Gui-Rong Xue, Hua-Jun Zeng, Zheng Chen, Wei-Ying Ma, Hong-Jiang Zhang, Chao-Jun Lu
July 2003 **Proceedings of the 26th annual international ACM SIGIR conference on Research and development in informaion retrieval**

Publisher: ACM Press

Full text available: pdf(228.68 KB)   Additional Information: full citation, abstract, references, citings, index terms

Current Web search engines generally impose link analysis-based re-ranking on web-page retrieval. However, the same techniques, when applied directly to small web search such as intranet and site search, cannot achieve the same performance because their link structures are different from the global Web. In this paper, we propose an approach to constructing implicit links by mining users' access patterns, and then apply a modified PageRank algorithm to re-rank web-pages for small web search. Our ...

Keywords: information retrieval, link analysis, log mining, web search

10 Selectivity estimation using probabilistic models

Lise Getoor, Benjamin Taskar, Daphne Koller
May 2001 **ACM SIGMOD Record , Proceedings of the 2001 ACM SIGMOD international conference on Management of data SIGMOD '01**, Volume 30 Issue 2

Publisher: ACM Press

Full text available: pdf(525.74 KB)   Additional Information: full citation, abstract, references, citings, index terms

Estimating the result size of complex queries that involve selection on multiple attributes and the join of several relations is a difficult but fundamental task in database query processing. It arises in cost-based query optimization, query profiling, and approximate query answering. In this paper, we show how probabilistic graphical models can be effectively used for this task as an accurate and compact approximation of the joint frequency distribution of multiple attributes across multiple ...

11 Context-specific Bayesian clustering for gene expression data

Yoseph Barash, Nir Friedman
April 2001 **Proceedings of the fifth annual international conference on Computational biology**

Publisher: ACM Press

Full text available: pdf(233.32 KB)   Additional Information: full citation, abstract, references, citings, index terms

The recent growth in genomic data and measurement of genome-wide expression patterns allows to examine gene regulation by transcription factors using computational tools. In this work, we present a class of mathematical models that help in understanding the

connections between transcription factors and functional classes of genes based on genetic and genomic data. These models represent the joint distribution of transcription factor binding sites and of expression levels of a gene in a single ...

12 A Bayesian decision model for cost optimal record matching

V. S. Verykios, G. V. Moustakides, M. G. Elfeky

May 2003 **The VLDB Journal — The International Journal on Very Large Data Bases,** Volume 12 Issue 1

Publisher: Springer-Verlag New York, Inc.

Full text available: pdf(180.87 KB)   Additional Information: full citation, abstract, citings, index terms

In an error-free system with perfectly clean data, the construction of a global view of the data consists of linking - in relational terms, joining - two or more tables on their key fields. Unfortunately, most of the time, these data are neither carefully controlled for quality nor necessarily defined commonly across different data sources. As a result, the creation of such a global data view resorts to approximate joins. In this paper, an optimal solution is proposed for the matching or the lin ...

Keywords: Cost optimal statistical model, Data cleaning, Record linkage

13 Model Averaging for Prediction with Discrete Bayesian Networks

Denver Dash, Gregory F. Cooper

December 2004 **The Journal of Machine Learning Research,** Volume 5

Publisher: MIT Press

Full text available: pdf(267.17 KB)   Additional Information: full citation, abstract

In this paper we consider the problem of performing Bayesian model-averaging over a class of discrete Bayesian network structures consistent with a partial ordering and with bounded in-degree k. We show that for N nodes this class contains in the worst-case at least <img align=middle src=dash04a-omega.jpeg alt="omega eq"> distinct network structures, and yet model averaging over these structures can be performed using <img align=middle src=dash04a-bigo.jpeg alt="bigo eq"&g ...

14 Learning Bayesian network classifiers by maximizing conditional likelihood

Daniel Grossman, Pedro Domingos

July 2004 **Proceedings of the twenty-first international conference on Machine learning ICML '04**

Publisher: ACM Press

Full text available: pdf(187.23 KB)   Additional Information: full citation, abstract, references

Bayesian networks are a powerful probabilistic representation, and their use for classification has received considerable attention. However, they tend to perform poorly when learned in the standard way. This is attributable to a mismatch between the objective function used (likelihood or a function thereof) and the goal of classification (maximizing accuracy or conditional likelihood). Unfortunately, the computational cost of optimizing structure and parameters for conditional likelihood is pro ...

15 Learning with mixtures of trees

Marina Meila, Michael I. Jordan

September 2001 **The Journal of Machine Learning Research,** Volume 1

Publisher: MIT Press

Full text available: pdf(400.02 KB)   Additional Information: full citation, abstract, citings

This paper describes the mixtures-of-trees model, a probabilistic model for discrete multidimensional domains. Mixtures-of-trees generalize the probabilistic trees of Chow and Liu (1968) in a different and complementary direction to that of Bayesian networks. We present efficient algorithms for learning mixtures-of-trees models in maximum likelihood and Bayesian frameworks. We also discuss additional efficiencies that can be obtained when data are "sparse," and we present data structures and alg ...

16 Probabilistic object bases

Thomas Eiter, James J. Lu, Thomas Lukasiewicz, V. S. Subrahmanian
September 2001 **ACM Transactions on Database Systems (TODS)**, Volume 26 Issue 3
Publisher: ACM Press
Full text available: pdf(663.73 KB)   Additional Information: full citation, abstract, references, index terms

Although there are many applications where an object-oriented data model is a good way of representing and querying data, current object database systems are unable to handle objects whose attributes are uncertain. In this article, we extend previous work by Kornatzky and Shimony to develop an algebra to handle object bases with uncertainty. We propose concepts of consistency for such object bases, together with an NP-completeness result, and classes of probabilistic object bases for which consi ...

Keywords: Consistency, object-oriented database, probabilistic object algebra, probabilistic object base, probability, query language, query optimization

17 Seeing, hearing, and touching: putting it all together

Brian Fisher, Sidney Fels, Karon MacLean, Tamara Munzner, Ronald Rensink
August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**
Publisher: ACM Press
Full text available: pdf(20.64 MB)   Additional Information: full citation

18 Multi Relational Data Mining (MRDM): Probabilistic logic learning

Luc De Raedt, Kristian Kersting
July 2003 **ACM SIGKDD Explorations Newsletter**, Volume 5 Issue 1
Publisher: ACM Press
Full text available: pdf(1.98 MB)   Additional Information: full citation, abstract, references, citings

The past few years have witnessed an significant interest in probabilistic logic learning, i.e. in research lying at the intersection of probabilistic reasoning, logical representations, and machine learning. A rich variety of different formalisms and learning techniques have been developed. This paper provides an introductory survey and overview of the state-of-the-art in probabilistic logic learning through the identification of a number of important probabilistic, logical and learning concept ...

Keywords: data mining, inductive logic programming, machine learning, multi-relational data mining, probabilistic reasoning, uncertainty

19 Dialog and elicitation: Bringing order into bayesian-network construction

E. M. Helsper, L. C. van der Gaag, A. J. Feelders, W. L. A. Loeffen, P. L. Geenen, A. R. W. Elbers
October 2005 **Proceedings of the 3rd international conference on Knowledge capture K-CAP '05**
Publisher: ACM Press
Full text available: pdf(148.56 KB)   Additional Information: full citation, abstract, references, index terms

Among the tasks involved in building a Bayesian network, obtaining the required probabilities is generally considered the most daunting. Available data collections are often too small to allow for estimating reliable probabilities. Most domain experts, on the other hand, consider assessing the numbers to be quite demanding. Qualitative probabilistic knowledge, however, is provided more easily by experts. We propose a method for obtaining probabilities, that uses qualitative expert knowledge to c ...
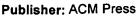
Keywords: bayesian networks, interview techniques, probability estimation, uncertainty

20 <u>Special issue on knowledge representation</u>

Ronald J. Brachman, Brian C. Smith

February 1980 **ACM SIGART Bulletin**, Issue 70

Publisher: ACM Press

Full text available: <u>pdf(13.13 MB)</u>   Additional Information: <u>full citation</u>, <u>abstract</u>

> In the fall of 1978 we decided to produce a special issue of the SIGART Newsletter devoted to a survey of current knowledge representation research. We felt that there were twe useful functions such an issue could serve. First, we hoped to elicit a clear picture of how people working in this subdiscipline understand knowledge representation research, to illuminate the issues on which current research is focused, and to catalogue what approaches and techniques are currently being developed. Secon ...

Results 1 - 20 of 200   Result page: **1**   <u>2</u>   <u>3</u>   <u>4</u>   <u>5</u>   <u>6</u>   <u>7</u>   <u>8</u>   <u>9</u>   <u>10</u>   <u>next</u>

P❋RTAL

USPTO

Search: ⊙ The ACM Digital Library   ○ The Guide

Bayesian and (graphical or GUI) and table and ("conditional pr| **SEARCH**

Feedback **Report a problem** **Satisfaction survey**

Terms used
Bayesian and **graphical** or **GUI** and **table** and **conditional probabilities** or **conditional probability**

Found **31,329** of **171,143**

Sort results by   [relevance ⊠]
Display results   [expanded form ⊠]

Save results to a Binder
Search Tips
□ Open results in a new window

Try an **Advanced Search**
Try this search in **The ACM Guide**

Results 21 - 40 of 200   Result page: **previous** **1** **2** **3** **4** **5** **6** **7** **8** **9** **10**   **next**
Best 200 shown   Relevance scale □⌷▨▩■

21 **Propositional and relational Bayesian networks associated with imprecise and qualitative probabilistic assessments**
Fabio Gagliardi Cozman, Cassio Polpo de Campos, Jaime Shinsuke Ide, José Carlos Ferreira da Rocha
July 2004 **Proceedings of the 20th conference on Uncertainty in artificial intelligence AUAI '04**
Publisher: AUAI Press
Full text available: pdf(340.75 KB)   Additional Information: full citation, abstract, references

> This paper investigates a representation language with flexibility inspired by probabilistic logic and compactness inspired by relational Bayesian networks. The goal is to handle propositional and first-order constructs together with precise, imprecise, indeterminate and qualitative probabilistic assessments. The paper shows how this can be achieved through the theory of credal networks. New exact and approximate inference algorithms based on multilinear programming and iterated/loopy propaga ...

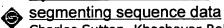**22** **An algorithm for the recovery of both target joint beliefs and full belief from Bayesian networks**
Mark Bloemeke
April 1998 **Proceedings of the 36th annual Southeast regional conference**
Publisher: ACM Press
Full text available: pdf(635.94 KB)   Additional Information: full citation, references, index terms

23 **Dynamic conditional random fields: factorized probabilistic models for labeling and segmenting sequence data**
Charles Sutton, Khashayar Rohanimanesh, Andrew McCallum
July 2004 **Proceedings of the twenty-first international conference on Machine learning ICML '04**
Publisher: ACM Press
Full text available: pdf(169.61 KB)   Additional Information: full citation, abstract, references, citings

> In sequence modeling, we often wish to represent complex interaction between labels, such as when performing multiple, cascaded labeling tasks on the same sequence, or when long-range dependencies exist. We present *dynamic conditional random fields (DCRFs)*, a generalization of linear-chain conditional random fields (CRFs) in which each time slice contains a set of state variables and edges---a distributed state representation as in dynamic Bayesian networks (DBNs)---and parameters are tie ...

24 <u>Content 6: multimodal processing: Multimodal metadata fusion using causal strength</u>

Yi Wu, Edward Y. Chang, Belle L. Tseng

November 2005 **Proceedings of the 13th annual ACM international conference on Multimedia MULTIMEDIA '05**
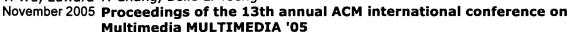
Publisher: ACM Press

Full text available: pdf(541.39 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>index terms</u>

We propose a probabilistic framework that uses influence diagrams to fuse metadata of multiple modalities for photo annotation. We fuse contextual information (location, time, and camera parameters), visual content (holistic and local perceptual features), and semantic ontology in a synergistic way. We use causal strengths to encode causalities between variables, and between variables and semantic labels. Through analytical and empirical studies, we demonstrate that our fusion approach can achie ...

Keywords: causal strength, influence diagram, multimodal fusion, photo annotation

25 <u>A new characterization of probabilities in Bayesian networks</u>

Lenhart K. Schubert

July 2004 **Proceedings of the 20th conference on Uncertainty in artificial intelligence AUAI '04**

Publisher: AUAI Press

Full text available: pdf(465.79 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>

We characterize probabilities in Bayesian networks in terms of algebraic expressions called quasi-probabilities. These are arrived at by casting Bayesian networks as noisy AND-OR-NOT networks, and viewing the subnetworks that lead to a node as arguments for or against a node. Quasi-probabilities are in a sense the "natural" algebra of Bayesian networks: we can easily compute the marginal quasi-probability of any node recursively, in a compact form; and we can obtain the joint quasi-probabilit ...

26 <u>Efficient reasoning</u>

Russell Greiner, Christian Darken, N. Iwan Santoso

March 2001 **ACM Computing Surveys (CSUR)**, Volume 33 Issue 1

Publisher: ACM Press

Full text available: pdf(445.41 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>, <u>review</u>

Many tasks require "reasoning"—i.e., deriving conclusions from a corpus of explicitly stored information—to solve their range of problems. An ideal reasoning system would produce all-and-only the correct answers to every possible query, produce answers that are as specific as possible, be expressive enough to permit any possible fact to be stored and any possible query to be asked, and be (time) efficient

Keywords: efficiency trade-offs, soundness/completeness/expressibility

27 <u>Large-Sample Learning of Bayesian Networks is NP-Hard</u>

David Maxwell Chickering, David Heckerman, Christopher Meek

December 2004 **The Journal of Machine Learning Research**, Volume 5

Publisher: MIT Press

Full text available: pdf(467.11 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>

In this paper, we provide new complexity results for algorithms that learn discrete-variable Bayesian networks from data. Our results apply whenever the learning algorithm uses a scoring criterion that favors the simplest structure for which the model is able to represent the generative distribution exactly. Our results therefore hold whenever the learning algorithm uses a consistent scoring criterion and is applied to a sufficiently large dataset. We show that identifying high-scoring structure ...

28

<u>System design methodologies: Any-time probabilistic switching model using bayesian</u>

networks
Shiva Shankar Ramani, Sanjukta Bhanja
August 2004 **Proceedings of the 2004 international symposium on Low power electronics and design**
Publisher: ACM Press
Full text available: pdf(72.41 KB)   Additional Information: full citation, abstract, references, index terms

Modeling and estimation of switching activities remain to be important problems in low-power design and fault analysis. A probabilistic Bayesian Network based switching model can explicitly model *all* spatio-temporal dependency relationships in a combinational circuit, resulting in zero-error estimates. However, the space-time requirements of exact estimation schemes, based on this model, increase with circuit complexity [1, 2]. This paper explores a non-simulative, Importance Sampling bas ...

Keywords: bayesian networks, power estimation, probabilistic modeling

29 Evaluation of an inference network-based retrieval model
Howard Turtle, W. Bruce Croft
July 1991 **ACM Transactions on Information Systems (TOIS)**, Volume 9 Issue 3
Publisher: ACM Press
Full text available: pdf(2.40 MB)   Additional Information: full citation, references, citings, index terms, review

Keywords: document retrieval, inference networks, network retrieval models

30 Learning equivalence classes of bayesian-network structures
David Maxwell Chickering
March 2002 **The Journal of Machine Learning Research**, Volume 2
Publisher: MIT Press
Full text available: pdf(442.83 KB)   Additional Information: full citation, abstract, references, citings, index terms

Two Bayesian-network structures are said to be equivalent if the set of distributions that can be represented with one of those structures is identical to the set of distributions that can be represented with the other. Many scoring criteria that are used to learn Bayesian-network structures from data are score equivalent; that is, these criteria do not distinguish among networks that are equivalent. In this paper, we consider using a score equivalent ...

31 Variational Message Passing
John Winn, Christopher M. Bishop
September 2005 **The Journal of Machine Learning Research**, Volume 6
Publisher: MIT Press
Full text available: pdf(456.23 KB)   Additional Information: full citation, abstract

Bayesian inference is now widely established as one of the principal foundations for machine learning. In practice, exact inference is rarely possible, and so a variety of approximation techniques have been developed, one of the most widely used being a deterministic framework called variational inference. In this paper we introduce Variational Message Passing (VMP), a general purpose algorithm for applying variational inference to Bayesian Networks. Like belief propagation, VMP proceeds by send ...

32 Optimal structure identification with greedy search
David Maxwell Chickering
March 2003 **The Journal of Machine Learning Research**, Volume 3
Publisher: MIT Press

Full text available: 📄 pdf(462.82 KB)   Additional Information: full citation, abstract, references, citings, index terms

In this paper we prove the so-called "Meek Conjecture". In particular, we show that if a DAG *H* is an independence map of another DAG *G*, then there exists a finite sequence of edge additions and covered edge reversals in *G* such that (1) after each edge modification *H* remains an independence map of *G* and (2) after all modifications *G* =*H*. As shown by Meek (1997), this result has an important consequence for Bayesian approaches to learning Bayesian ne ...

33 An efficient multi-relational Naïve Bayesian classifier based on semantic relationship graph

Hongyan Liu, Xiaoxin Yin, Jiawei Han

August 2005 **Proceedings of the 4th international workshop on Multi-relational mining MRDM '05**

Publisher: ACM Press

Full text available: 📄 pdf(197.03 KB)   Additional Information: full citation, abstract, references, index terms

Classification is one of the most popular data mining tasks with a wide range of applications, and lots of algorithms have been proposed to build accurate and scalable classifiers. Most of these algorithms only take a single table as input, whereas in the real world most data are stored in multiple tables and managed by relational database systems. As transferring data from multiple tables into a single one usually causes many problems, development of multi-relational classification algorithms b ...

Keywords: Naïve Bayes, classification, data mining

34 Special issue on independent components analysis: Beyond independent components: trees and clusters

Francis R. Bach, Michael I. Jordan

December 2003 **The Journal of Machine Learning Research**, Volume 4

Publisher: MIT Press

Full text available: 📄 pdf(271.81 KB)   Additional Information: full citation, abstract, index terms

We present a generalization of independent component analysis (ICA), where instead of looking for a linear transform that makes the data components independent, we look for a transform that makes the data components well fit by a tree-structured graphical model. This *tree-dependent component analysis (TCA)* provides a tractable and flexible approach to weakening the assumption of independence in ICA. In particular, TCA allows the underlying graph to have multiple connected componen ...

35 Research track papers: Interestingness of frequent itemsets using Bayesian networks as background knowledge

Szymon Jaroszewicz, Dan A. Simovici

August 2004 **Proceedings of the tenth ACM SIGKDD international conference on Knowledge discovery and data mining KDD '04**

Publisher: ACM Press

Full text available: 📄 pdf(191.90 KB)   Additional Information: full citation, abstract, references, index terms

The paper presents a method for pruning frequent itemsets based on background knowledge represented by a Bayesian network. The interestingness of an itemset is defined as the absolute difference between its support estimated from data and from the Bayesian network. Efficient algorithms are presented for finding interestingness of a collection of frequent itemsets, and for finding all attribute sets with a given minimum interestingness. Practical usefulness of the algorithms and their efficiency ...

Keywords: Bayesian network, association rule, background, frequent itemset, interestingness, knowledge

36 Computer science, games, and logic: Structured models for multi-agent interactions

Daphne Koller, Brian Milch

July 2001 **Proceedings of the 8th conference on Theoretical aspects of rationality and knowledge**

Publisher: Morgan Kaufmann Publishers Inc.

Full text available: pdf(1.40 MB)   Additional Information: full citation, abstract, references

The traditional representations of games using the extensive form or the strategic (normal) form obscure much of the structure that is present in real-world games. In this paper, we propose a new representation language for general multi-player noncooperative games --- <i>multi-agent influence diagrams (MAIDs).</i> This representation extends graphical models for probability distributions to a multi-agent decision-making context. The basic elements in the MAID representation are < ...

37 Special issue on on inductive logic programming: Ilp: a short look back and a longer look forward

David Page, Ashwin Srinivasan

December 2003 **The Journal of Machine Learning Research**, Volume 4

Publisher: MIT Press

Full text available: pdf(103.21 KB)   Additional Information: full citation, abstract, references, index terms

Inductive logic programming (ILP) is built on a foundation laid by research in machine learning and computational logic. Armed with this strong foundation, ILP has been applied to important and interesting problems in the life sciences, engineering and the arts. This paper begins by briefly reviewing some example applications, in order to illustrate the benefits of ILP. In turn, the applications have brought into focus the need for more research into specific topics. We enumerate and elaborate f ...

38 Dependency preserving probabilistic modeling of switching activity using bayesian networks

Sanjukta Bhanja, N. Ranganathan

June 2001 **Proceedings of the 38th conference on Design automation**

Publisher: ACM Press

Full text available: pdf(226.44 KB)   Additional Information: full citation, abstract, references, citings, index terms

We propose a new switching probability model for combinational circuits using a**Logic-Induced-Directed-Acyclic-Graph**(LIDAG) and prove that such a graph corresponds to a**Bayesian Network**guaranteed to map all the dependencies inherent in the circuit. This switching activity can be estimated by capturing complex dependencies (spatio-temporal and conditional) among signals efficiently by local message-passing based on the Bayesian networks. Switching activity estimation of ISCAS and ...

39 Learning Hidden Variable Networks: The Information Bottleneck Approach

Gal Elidan, Nir Friedman

January 2005 **The Journal of Machine Learning Research**, Volume 6

Publisher: MIT Press

Full text available: pdf(744.77 KB)   Additional Information: full citation, abstract

A central challenge in learning probabilistic graphical models is dealing with domains that involve hidden variables. The common approach for learning model parameters in such domains is the *expectation maximization* (EM) algorithm. This algorithm, however, can easily get trapped in sub-optimal local maxima. Learning the model *structure* is even more challenging. The *structural EM* algorithm can adapt the structure in the presence of hidden variables, but usually performs poorl ...

40 Software engineering: theory, application and practice: Evaluating collaborative software in supporting organizational learning with Bayesian Networks

Mahmoud O. Elish, David C. Rine, Joel E. Foreman

March 2002 **Proceedings of the 2002 ACM symposium on Applied computing**

Publisher: ACM Press

Full text available: 📄 pdf(574.57 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>index terms</u>

Many collaborative software tools have been developed in the recent years to accelerate the growing interest of many organizations to become learning organizations. Selecting a collaborative tool that best suits an organization's needs is a challenging task, given that there are no evaluation criteria against which these tools could be evaluated with respect to various organizational learning concepts. The objective of this paper is twofold. First, it derives a generic set of criteria required t ...

Keywords: Bayesian networks, collaborative software, mental models, organizational learning, software tools evaluation

Results 21 - 40 of 200   Result page: <u>previous</u>   <u>1</u>   **2**   <u>3</u>   <u>4</u>   <u>5</u>   <u>6</u>   <u>7</u>   <u>8</u>   <u>9</u>   <u>10</u>   <u>next</u>

Useful downloads: 📄 <u>Adobe Acrobat</u>   <u>QuickTime</u>   <u>Windows Media Player</u>   <u>Real Player</u>

P⊛RTAL
USPTO

Search: ⦿ The ACM Digital Library   ○ The Guide

Bayesian and (graphical or GUI) and table and ("conditional pr| **SEARCH**

♦ Feedback Report a problem Satisfaction survey

Terms used
Bayesian and **graphical** or **GUI** and **table** and **conditional probabilities** or **conditional probability**

Found **31,329** of **171,143**

Sort results by | relevance ▾ |
Display results | expanded form ▾ |

♦ Save results to a Binder
▣ Search Tips
☐ Open results in a new window

Try an Advanced Search
Try this search in The ACM Guide

Results 41 - 60 of 200   Result page: previous 1 2 **3** 4 5 6 7 8 9 10   next
Best 200 shown   Relevance scale ☐▭▬◼◼

41 Data integration and data mining: Spatial bayesian learning algorithms for geographic information retrieval
Arron R. Walker, Binh Pham, Miles Moody
November 2005 **Proceedings of the 13th annual ACM international workshop on Geographic information systems GIS '05**
Publisher: ACM Press
Full text available: 🗎 pdf(529.11 KB)   Additional Information: full citation, abstract, references, index terms

> An increasing amount of freely available Geographic Information System (GIS) data on the Internet has stimulated recent research into Geographic Information Retrieval (GIR). Typically, GIR looks at the problem of retrieving GIS datasets on a theme by theme basis. However in practice, themes are generally not analysed in isolation. More often than not multiple themes are required to create a map for a particular analysis task. To do this using the current GIR techniques, each theme is retrieved o ...
>
> **Keywords**: geographic information retrieval, geographic information system, information retrieval, learning Bayesian networks, spatial Bayesian learning

42 Switching Activity Estimation of Large Circuits using Multiple Bayesian Networks
Sanjukta Bhanja, N. Ranganathan
January 2002 **Proceedings of the 2002 conference on Asia South Pacific design automation/VLSI Design**
Publisher: IEEE Computer Society
Full text available: 🗎 pdf(180.43 KB)
                    🗎 Publisher Site   Additional Information: full citation, abstract

> Switching activity estimation is a crucial step in estimating dynamic power consumption in CMOS circuits. In [1] , we proposed a new switching probability model based on Bayesian Networks which captures accurately the various correlations in the circuit. In this work, we propose a new strategy for efficient segmentation of large circuits so that they can be mapped to Multiple Bayesian Networks (MBN). The goal here is to achieve higher accuracy while reducing the memory requirements during the co ...

43 Research track papers: A Bayesian network framework for reject inference
Andrew Smith, Charles Elkan
August 2004 **Proceedings of the tenth ACM SIGKDD international conference on Knowledge discovery and data mining KDD '04**
Publisher: ACM Press
Full text available: 🗎 pdf(201.00 KB)   Additional Information: full citation, abstract, references, index terms

Most learning methods assume that the training set is drawn randomly from the population to which the learned model is to be applied. However in many applications this assumption is invalid. For example, lending institutions create models of who is likely to repay a loan from training sets consisting of people in their records to whom loans were given in the past; however, the institution approved loan applications previously based on who was thought unlikely to default. Learning from only appro ...

Keywords: Bayesian networks, Heckman estimator, expectation-maximization, propensity scores, reject inference, sample selection bias

44 A multilayer personality model

Sumedha Kshirsagar
June 2002 **Proceedings of the 2nd international symposium on Smart graphics SMARTGRAPH '02**
Publisher: ACM Press
Full text available: pdf(5.14 MB)   Additional Information: full citation, abstract, references

Virtual humans have been the focus of computer graphics research for several years now. The amalgamation of computer graphics and artificial intelligence has lead to the possibility of creating believable virtual personalities. The focus has shifted from modeling and animation towards imparting personalities to virtual humans. The aim is to create virtual humans that can interact spontaneously using a natural language, emotions and gestures. This paper discusses a system that allows the design o ...

Keywords: Bayesian belief network, facial animation, five factor model, personality modeling, virtual humans

45 Local versus global link information in the Web

Pável Calado, Berthier Ribeiro-Neto, Nivio Ziviani, Edleno Moura, Ilmério Silva
January 2003 **ACM Transactions on Information Systems (TOIS)**, Volume 21 Issue 1
Publisher: ACM Press
Full text available: pdf(413.06 KB)   Additional Information: full citation, abstract, references, citings, index terms

Information derived from the cross-references among the documents in a hyperlinked environment, usually referred to as link information, is considered important since it can be used to effectively improve document retrieval. Depending on the retrieval strategy, link information can be local or global. Local link information is derived from the set of documents returned as answers to the current user query. Global link information is derived from all the documents in the collection. In th ...

Keywords: Belief networks, World Wide Web, link analysis, local and global information

46 Oral presentation session V: query processing and data collection: A probabilistic approach to inference with limited information in sensor networks

Rahul Biswas, Sebastian Thrun, Leonidas J. Guibas
April 2004 **Proceedings of the third international symposium on Information processing in sensor networks**
Publisher: ACM Press
Full text available: pdf(177.74 KB)   Additional Information: full citation, abstract, references

We present a methodology for a sensor network to answer queries with limited and stochastic information using probabilistic techniques. This capability is useful in that it allows sensor networks to answer queries effectively even when present information is partially corrupt and when more information is unavailable or too costly to obtain. We use a Bayesian network to model the sensor network and Markov Chain Monte Carlo sampling to perform approximate inference. We demonstrate our technique on ...

47 <u>Mixtures of deterministic-probabilistic networks and their AND/OR search space</u>

Rina Dechter, Robert Mateescu

July 2004 **Proceedings of the 20th conference on Uncertainty in artificial intelligence AUAI '04**

Publisher: AUAI Press

Full text available: pdf(396.84 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>

The paper introduces <i>mixed networks,</i> a new framework for expressing and reasoning with probabilistic and deterministic information. The framework combines belief networks with constraint networks, defining the semantics and graphical representation. We also introduce the AND/OR search space for graphical models, and develop a new linear space search algorithm. This provides the basis for understanding the benefits of processing the constraint information separately, resulting i ...

48 <u>Latent semantic models for collaborative filtering</u>

Thomas Hofmann

January 2004 **ACM Transactions on Information Systems (TOIS)**, Volume 22 Issue 1

Publisher: ACM Press

Full text available: pdf(250.03 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>

Collaborative filtering aims at learning predictive models of user preferences, interests or behavior from community data, that is, a database of available user preferences. In this article, we describe a new family of model-based algorithms designed for this task. These algorithms rely on a statistical modelling technique that introduces latent class variables in a mixture model setting to discover user communities and prototypical interest profiles. We investigate several variations to deal wi ...

49 <u>Dimensionality Reduction for Supervised Learning with Reproducing Kernel Hilbert Spaces</u>
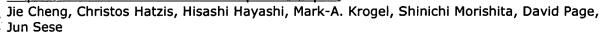
Kenji Fukumizu, Francis R. Bach, Michael I. Jordan

December 2004 **The Journal of Machine Learning Research**, Volume 5

Publisher: MIT Press

Full text available: pdf(389.63 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>citings</u>, <u>index terms</u>

We propose a novel method of dimensionality reduction for supervised learning problems. Given a regression or classification problem in which we wish to predict a response variable Y from an explanatory variable X, we treat the problem of dimensionality reduction as that of finding a low-dimensional "effective subspace" for X which retains the statistical relationship between X and Y. We show that this problem can be formulated in terms of conditional independe ...

50 <u>Reports from KDD-2001: KDD Cup 2001 report</u>

Jie Cheng, Christos Hatzis, Hisashi Hayashi, Mark-A. Krogel, Shinichi Morishita, David Page, Jun Sese

January 2002 **ACM SIGKDD Explorations Newsletter**, Volume 3 Issue 2

Publisher: ACM Press

Full text available: pdf(1.96 MB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>

This paper presents results and lessons from KDD Cup 2001. KDD Cup 2001 focused on mining biological databases. It involved three cutting-edge tasks related to drug design and genomics.

Keywords: Competition, biology, drug design, genomics

51 <u>Automatic thesaurus construction using Bayesian networks</u>

Young C. Park, Young S. Han, Key-Sun Choi

December 1995 **Proceedings of the fourth international conference on Information and knowledge management**

Publisher: ACM Press

Full text available: pdf(499.76 KB)　Additional Information: full citation, references, citings, index terms

52 Probabilistic query models for transaction data

Dmitry Pavlov, Padhraic Smyth

August 2001 **Proceedings of the seventh ACM SIGKDD international conference on Knowledge discovery and data mining**

Publisher: ACM Press

Full text available: pdf(958.33 KB)　Additional Information: full citation, abstract, references, citings, index terms

We investigate the application of Bayesian networks, Markov random fields, and mixture models to the problem of query answering for transaction data sets. We formulate two versions of the querying problem: the query selectivity estimation (i.e., finding exact counts for tuples in a data set) and the query generalization problem (i.e., computing the probability that a tuple will occur in new data). We show that frequent itemsets are useful for reducing the original data to a compressed representa ...

53 Tolerating penetrations and insider attacks by requiring independent corroboration

Clifford Kahn

January 1998 **Proceedings of the 1998 workshop on New security paradigms**

Publisher: ACM Press

Full text available: pdf(1.16 MB)　Additional Information: full citation, references, index terms

Keywords: fault tolerance, information survivability, security, trust models

54 Estimation of distribution algorithms: Extracted global structure makes local building block processing effective in XCS

Martin V. Butz, Martin Pelikan, Xavier Llorà, David E. Goldberg

June 2005 **Proceedings of the 2005 conference on Genetic and evolutionary computation GECCO '05**

Publisher: ACM Press

Full text available: pdf(249.90 KB)　Additional Information: full citation, abstract, references, index terms

Michigan-style learning classifier systems (LCSs), such as the accuracy-based XCS system, evolve distributed problem solutions represented by a population of rules. Recently, it was shown that decomposable problems may require effective processing of subsets of problem attributes, which cannot be generally assured with standard crossover operators. A number of competent crossover operators capable of effective identification and processing of arbitrary subsets of variables or string positions we ...

Keywords: bayesian optimization algorithm, building block processing, decomposable classification problems, estimation of distribution algorithms, extended compact GA, learning classifier systems

55 Poster session 1: Causal probabilistic input dependency learning for switching model in VLSI circuits

Nirmal Ramalingam, Sanjukta Bhanja

April 2005 **Proceedings of the 15th ACM Great Lakes symposium on VLSI**

Publisher: ACM Press

Full text available: pdf(59.42 KB)　Additional Information: full citation, abstract, references, index terms

Switching model captures the data-driven uncertainty in logic circuits in a comprehensive probabilistic framework. Switching is a critical factor that influences dynamic, active leakage power, coupling noises in CMOS implementations. In this work, we model the

input-space by a causal graphical probabilistic model that encapsulates the dependencies in inputs in a compact, minimal fashion and also allows for instantiations of the vector-space that closely match the underlying dependencies, with th ...

Keywords: Bayesian networks, cross-talk estimation, power estimation, probabilistic learning, vector compaction

56 <u>Link-based and content-based evidential information in a belief network model</u>

Ilmério Silva, Berthier Ribeiro-Neto, Pável Calado, Edleno Moura, Nívio Ziviani

July 2000 **Proceedings of the 23rd annual international ACM SIGIR conference on Research and development in information retrieval**

Publisher: ACM Press

Full text available: <u>pdf(854.30 KB)</u> Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>

This work presents an information retrieval model developed to deal with hyperlinked environments. The model is based on belief networks and provides a framework for combining information extracted from the content of the documents with information derived from cross-references among the documents. The information extracted from the content of the documents is based on statistics regarding the keywords in the collection and is one of the basis for traditional information retrieval (IR) rankin ...

Keywords: IR models, content-based retrieval, exploiting hyperlinked structure

57 <u>Text categorization for multi-page documents: a hybrid naive Bayes HMM approach</u>

Paolo Frasconi, Giovanni Soda, Alessandro Vullo

January 2001 **Proceedings of the 1st ACM/IEEE-CS joint conference on Digital libraries**

Publisher: ACM Press

Full text available: <u>pdf(280.05 KB)</u> Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>index terms</u>

Text categorization is typically formulated as a concept learning prob lem where each instance is a single isolated document. In this paper we are interested in a more general formulation where documents are organized as page sequences, as naturally occurring in digital libraries of scanned books and magazines. We describe a method for classifying pages of sequential OCR text documents into one of several assigned categories and suggest that taking into account contextual information provid ...

Keywords: hidden Markov models, multi-page documents, naive Bayes classifier, text categorization

58 <u>Bayesian haplo-type inference via the dirichlet process</u>

Eric Xing, Roded Sharan, Michael I. Jordan

July 2004 **Proceedings of the twenty-first international conference on Machine learning ICML '04**

Publisher: ACM Press

Full text available: <u>pdf(186.80 KB)</u> Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>

The problem of inferring haplotypes from genotypes of single nucleotide polymorphisms (SNPs) is essential for the understanding of genetic variation within and among populations, with important applications to the genetic analysis of disease propensities and other complex traits. The problem can be formulated as a mixture model, where the mixture components correspond to the pool of haplotypes in the population. The size of this pool is unknown; indeed, knowing the size of the pool would corresp ...

59 <u>Estimation of distribution algorithms: On the convergence of an estimation of distribution algorithm based on linkage discovery and factorization</u>

Alden H. Wright, Sandeep Pulavarty

June 2005 **Proceedings of the 2005 conference on Genetic and evolutionary computation GECCO '05**

Publisher: ACM Press

Full text available: pdf(146.80 KB)   Additional Information: full citation, abstract, references, index terms

Estimation of distribution algorithms construct an explicit model of the problem to be solved, and then use this model to guide the search for good solutions. For an important class of fitness functions, namely those with k-bounded epistasis, it is possible to construct a complete explicit representation of the fitness function by sampling the fitness function. A very natural model of the problem to be solved is the Boltzmann distribution of the fitness function, which is an exponential o ...

Keywords: Boltzmann distribution, estimation of distribution algorithms, evolutionary computation, factorization, genetic algorithms

60 Simulation coverage and generation for verification: Coverage directed test generation for functional verification using bayesian networks

Shai Fine, Avi Ziv

June 2003 **Proceedings of the 40th conference on Design automation**

Publisher: ACM Press

Full text available: pdf(162.58 KB)   Additional Information: full citation, abstract, references, citings, index terms

Functional verification is widely acknowledged as the bottleneck in the hardware design cycle. This paper addresses one of the main challenges of simulation based verification (or dynamic verification), by providing a new approach for *Coverage Directed Test Generation* (CDG). This approach is based on Bayesian networks and computer learning techniques. It provides an efficient way for closing a feedback loop from the coverage domain back to a generator that produces new stimuli to the test ...
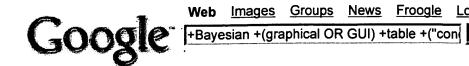
Keywords: bayesian networks, coverage analysis, functional verification

Results 41 - 60 of 200   Result page: previous   1   2   **3**   4   5   6   7   8   9   10   next

Useful downloads: Adobe Acrobat   QuickTime   Windows Media Player   Real Player

Google

Web   Images   Groups   News   Froogle   Local   **more »**

+Bayesian +(graphical OR GUI) +table +("con[[Search]   Advanced Search
Preferences

Web Results **1 - 10** of about **83,400** for **+Bayesian +(graphical OR GUI) +table +("conditional probabilities"**

A Brief Introduction to **Graphical** Models and **Bayesian** Networks
Dynamic **Bayesian** Networks (DBNs) are directed **graphical** models of stochastic ...
Consider estimating the **Conditional Probability Table** for the W node. ...
www.cs.ubc.ca/~murphyk/Bayes/bnintro.html - 62k - Cached - Similar pages

HUGIN EXPERT - Feature_List
Specification of "number of samples per interval" for each **table**. The structure and
conditional probability distribution of a **Bayesian** network can be ...
www.hugin.com/Products_Services/Products/Feature_List/ - 33k - Cached - Similar pages

HUGIN EXPERT - news
The Hugin **Graphical** User Interface has been improved with various new features. ...
object-oriented **Bayesian** network when estimating **conditional probability** ...
www.hugin.com/news/release_64_03032004.article - 25k - Cached - Similar pages
[More results from www.hugin.com]

Bayesian network - Wikipedia, the free encyclopedia
It can be shown that the **graphical** notion called d-separation corresponds ... of the acyclic
graph and the **conditional probability table** associated with it. ...
en.wikipedia.org/wiki/Bayesian_network - 24k - Cached - Similar pages

Bayesian network - Wikipedia, the free encyclopedia
A **Bayesian** network or **Bayesian** belief network or just belief network is a ... of the acyclic
graph and the **conditional probability table** associated with it. ...
en.wikipedia.org/wiki/Belief_networks - 24k - Cached - Similar pages

A Class for Discrete **Bayesian** Networks in Darwin
Bayesian networks are really a subset of the category of **graphical** models. **Graphical**
models combine ... **Conditional Probability Table** for Node: Cloudy ...
www.biorecipes.com/BayesNet/code.html - 25k - Cached - Similar pages

Citations: **Bayesian** updating in recursive **graphical** models by ...
Bayesian updating in recursive **graphical** models by local computations. ... A **table** is an
array which is indexed by variables instantiations. ...
citeseer.ist.psu.edu/context/76418/0 - 33k - Cached - Similar pages

Citations: **Bayesian** updating in recursive **graphical** models by ...
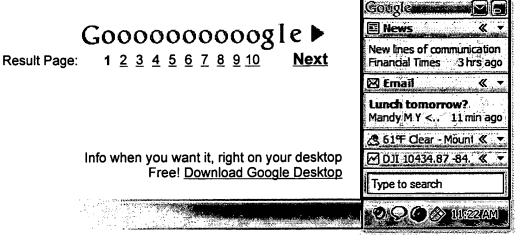**Bayesian** updating in recursive **graphical** models by local computations. ... By definition of
conditional probability, P (x 1 je) ffP (x 1 ; e) ff Xx 2 . ...
citeseer.ifi.unizh.ch/context/76418/0 - 70k - Cached - Similar pages

[PDF] About **Bayesian** Belief Networks
File Format: PDF/Adobe Acrobat - View as HTML
conditional probabilities for a **Bayesian** belief network is shown in Figure 3. ... Every
node also has a **conditional probability table**, or CPT, ...
www.cra.com/pdf/BNetBuilderBackground.pdf - Similar pages

Inference in **Bayesian** networks - Nature Biotechnology
When evaluated with the **conditional probabilities** in Figure 1, ... taken advantage of
Bayesian networks or, more generally, probabilistic **graphical** models. ...
www.nature.com/nbt/journal/v24/n1/full/nbt0106-51.html - Similar pages

Goooooooooogle ▶

Result Page: 1 2 3 4 5 6 7 8 9 10   **Next**

Info when you want it, right on your desktop
Free! Download Google Desktop

Google
📰 News   « ▾
New lines of communication Financial Times   3 hrs ago
✉ Email   « ▾
Lunch tomorrow? Mandy M Y <.. 11 min ago
🌤 61°F Clear - Mount « ▾
☑ DJI 10434.87 -84. « ▾
Type to search

| +Bayesian +(graphical OR GUI) +tal | Search |

Search within results | Language Tools | Search Tips | Dissatisfied? Help us improve

Google Home - Advertising Programs - Business Solutions - About Google

©2006 Google

Google™

Web   Images   Groups   News   Froogle   Local   **more »**

| +Bayesian +(graphical OR GUI) +table +("con | **Search** | Advanced Search Preferences

Web Results **11 - 20** of about **83,400** for **+Bayesian +(graphical OR GUI) +table +("conditional probabilities**

[PDF] Augmented Naive **Bayesian** Classifiers for Mixed-Mode Data
File Format: PDF/Adobe Acrobat - View as HTML
conditional probability table is used to represent the dependency. ... Note that the
Bayesian Network was implemented using **Graphical** Model Toolkit ...
ssli.ee.washington.edu/~lixiao/files/AugNaiveBayes.pdf - Similar pages

[PDF] Using **Bayesian** Belief Networks to Improve the Selection of ...
File Format: PDF/Adobe Acrobat - View as HTML
(**Bayesian Graphical** Model) approach in modeling a ... Step 5: Specify **Conditional**
Probabilities. Conditional probability table (CPT) is constructed ...
www.storc.ie/vijaya/use_BN_SWTg1.pdf - Similar pages

[PDF] Learning **Bayesian** network classifiers for credit scoring using ...
File Format: PDF/Adobe Acrobat
Table 1. Performance of the **Bayesian** network classifiers and C4.5. ... [8] D. Madigan and
J. York. **Bayesian graphical** models for ...
doi.ieeecomputersociety.org/10.1109/ICPR.2002.1047792 - Similar pages

[PDF] Learning **Bayesian** network classifiers for credit scoring using ...
File Format: PDF/Adobe Acrobat - View as HTML
Each **conditional probability table** has the ... Machine Learning, 20:194–243, 1995. [7] D.
Madigan and J. York. **Bayesian graphical** models for. discrete data. ...
ftp.cs.uu.nl/pub/RUU/CS/techreps/CS-2001/2001-58.pdf - Similar pages

The Interchange Format for **Bayesian** Networks
... representation of **Bayesian** networks and other related **graphical** models. ... **Conditional**
probability densities are specified inside the DEFINITION tag. ...
www.cs.cmu.edu/~fgcozman/Research/InterchangeFormat/ - 20k - Cached - Similar pages

An Introduction to **Bayesian** Networks and their Contemporary ...
Bayesian Networks. Introduction. The concept of **conditional probability** is a useful ... –
[The **conditional probabilities** of an alarm giving the independent ...
www.niedermayer.ca/papers/**bayesian**/ - 56k - Cached - Similar pages

Citations: Sequential updating of **conditional probabilities** on ...
Sequential updating of **conditional probabilities** on directed **graphical** ... **Graphical**
models and **Bayesian** networks have been extensively studied in AI, ...
citeseer.ifi.unizh.ch/context/14263/0 - 61k - Cached - Similar pages

Amos Storkey - Research - Belief Networks
A simple illustrated tutorial on belief networks (or **Bayesian** networks), ... number of
classes) this amounts to defining a **conditional probability table**. ...
www.anc.ed.ac.uk/~amos/belief.html - 33k - Cached - Similar pages

Citations: Introduction to **Graphical** Modelling - Edwards ...
Bayesian belief networks belong to the class of **graphical** probabilistic ... to a **graphical**
model for a contingency **table** is decomposable into subgraphs by a ...
citeseer.ist.psu.edu/context/200617/0 - 35k - Cached - Similar pages

Amazon.com: **Bayesian** Networks and Decision Graphs (Information ...
Bayesian networks and decision graphs are formal **graphical** languages for ... Vertex Y
would contain a contingency **table** that reflects the **conditional** ...
www.amazon.com/exec/obidos/ tg/detail/-/0387952594?v=glance - 122k -

◀ Gooooooooooogle ▶

Result Page: **Previous** 1 **2** 3 4 5 6 7 8 9 10 11   **Next**

+Bayesian +(graphical OR GUI) +tab Search

Search within results | Language Tools | Search Tips

Google Home - Advertising Programs - Business Solutions - About Google

©2006 Google

Web   Images   Groups   News   Froogle   Local   **more »**

Google™

| +Bayesian +(graphical OR GUI) +table +("con | **Search** |
 |

Web Results **21 - 30** of about **83,400** for **+Bayesian +(graphical OR GUI) +table +("conditional probabilities**

[PDF] Graphical models: parameter learning
File Format: PDF/Adobe Acrobat - View as HTML
Directed **graphical** models, also known as **BAYESIAN** NET- ... terized by a **conditional**
probability table which relates its values to the values of its parents. ...
www.gatsby.ucl.ac.uk/~zoubin/course05/hbtnn2e-II.pdf - Similar pages

[PS] Bayesian Graphical Models Finn Verner Jensen Department of ...
File Format: Adobe PostScript - View as HTML
Mathematically, a **Bayesian graphical** model is a representation of the joint ... PR(U) is the
product of the specified **conditional probability** tables: ...
www.cs.auc.dk/research/DSS/papers/jensen00a.ps - Similar pages

[PDF] Learning Structure in Directed **Graphical** Models
File Format: PDF/Adobe Acrobat - View as HTML
and the **conditional probabilities** θ that will minimize the error in the prediction ... in the
size of the local **conditional probability** distribution **table**; ...
www.cse.ucsc.edu/classes/cmps290c/Spring04/proj/jay.pdf - Similar pages

Tutorial on **Bayesian** Networks with Netica
Netica is a **graphical** application for developing **bayesian** networks (Bayes ... define what is
termed the **Conditional Probability Table**, or CPT, for short. ...
www.norsys.com/tutorials/netica/secB/tut_B3.htm - 22k - Cached - Similar pages

[PDF] Learning **Bayesian** Networks From Dependency Networks: A Preliminary ...
File Format: PDF/Adobe Acrobat - View as HTML
fact that the size of a **conditional probability table**. grows exponentially with the number of
parents ... the output **Bayesian** network specify the **graphical** ...
research.microsoft.com/~dmax/publications/dn2bn.pdf - Similar pages

Graphical Models: **Table** of Contents
4 **Graphical** Representation. 4.1 Conditional Independence Graphs ... 6.1.1 The Basic
Formula; 6.1.2 Relation to **Bayesian** Networks; 6.1.3 A Simple Example ...
fuzzy.cs.uni-magdeburg.de/books/gm/contents.html - 10k - Cached - Similar pages

Page 5 - Implement **Bayesian** inference using PHP, Part 1
Recasting the **conditional probability** formula in terms of probabilities allows you to make
inferences based on related probability information that is more ...
www.devshed.com/c/a/PHP/ Implement-Bayesian-inference-using-PHP-Part-1/4/ - 77k -
Cached - Similar pages

[PDF] **Bayesian** Networks
File Format: PDF/Adobe Acrobat - View as HTML
Bayesian networks are a specific type of **graphical** model with directed edges and no
cycles ... has a **conditional probability table** (CPT) P(A | ...
www.utdallas.edu/~maa013600/ publications/DM_Encyclopedia_BN_04.PDF -
Similar pages

[PDF] Visualization of **Bayesian** Networks edu
File Format: PDF/Adobe Acrobat - View as HTML
graphical. representations for displaying **Bayesian** networks used by ... **conditional**
probabilities for each node to one giant **table**, ...
www.cs.uml.edu/~cchiang/Papers/ VisualizationOfBayesianNetworks.pdf - Similar pages

[PPT] <u>No Slide Title</u>
File Format: Microsoft Powerpoint 97 - <u>View as HTML</u>
Graphical Models in general and **Bayesian** Networks in particular are a ... The **conditional**
probability in CPT **table** can be learned through training by real ...
fred.mems.duke.edu/projects/sensor.fusion/ presentations/Research-Day-2005-Poster.ppt -
<u>Similar pages</u>

◄ Goooooooooooogle ►

Result Page: **Previous** <u>1</u> <u>2</u> **3** <u>4</u> <u>5</u> <u>6</u> <u>7</u> <u>8</u> <u>9</u> <u>10</u><u>11</u><u>12</u>   **Next**

| +Bayesian +(graphical OR GUI) +tab | Search |

<u>Search within results</u> | <u>Language Tools</u> | <u>Search Tips</u>

<u>Google Home</u> - <u>Advertising Programs</u> - <u>Business Solutions</u> - <u>About Google</u>

©2006 Google